

Paper prepared for the
EY International Congress on Economics II
"GROWTH, INEQUALITY AND POVERTY"
Ankara, November 5-6, 2015



EKONOMİK YAKLAŞIM
Quarterly Peer-Reviewed Scientific Journal
Department of Economics - Gazi University

**How Fragile Is Turkey: A Comparative Study on the Social Impacts of the Global
Financial Crisis in Emerging Market Economies**

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Abstract

The Global Financial Crisis of 2007- 2008 and its global repercussions hit the world economy leading to deteriorations in growth, inequality and poverty indicators. Despite the unconventionally strong state support to countervail the spillover effects associated with the global financial crisis, the pace of the progress towards the targeted Millennium Development Goals by 2015 has lost momentum in a number of countries. Since emerging market economies are expected to be more vulnerable to contagion given their dependency on international capital flows the paper examines the social impacts of the global financial crisis of 2007- 2008 in a number of emerging market countries and assesses the vulnerability of the Turkish economy in comparison with other fragile developing economies such as Mexico, Brazil, South Africa, India and Indonesia. It is concluded that although the initial effects of the Global Financial Crisis on the Turkish economy is not as pronounced as the effects observed in some of the other developing economies, Turkey has incurred large losses in terms of growth, employment and income distribution due to the spillover effects of the Global Financial Crisis.

Keywords: *Global Financial Crisis, Growth, Inequality, Poverty, Millenium Development Goals, Spillover effect.*

JEL Codes: *I31, I32, D31*

1. Introduction

The Global Financial Crisis of 2007- 2008 (GFC) has been deeply investigated in various aspects of economics literature and yet there is still much to learn out of its repercussions. Although initially stemming from the problems in the US subprime mortgage market in 2007, closely tied links between global financial markets rapidly led to a once- in- a- generation global financial crisis that is to cause financial, economic and social losses for the years to come. The initial aftermath of the GFC has been thoroughly evaluated and precautionary measures are taken by the supervisory authorities to minimize the losses to be incurred as a result of the crisis. Despite the countervailing efforts the GFC caused substantial social and economic losses especially for the most fragile economies of the world.

Emerging market and developing economies (EDEs) that are dependent on international capital flows to finance the investments needed for sustainable long-term growth are known to be more vulnerable to the global business cycles (Akyuz, 2012, 2009). The term “fragile five” which is coined by an analyst at Morgan Stanley in 2013 to represent emerging market economies that are too dependent on unstable foreign capital flows for financing growth has acquired widespread recognition. Members of the fragile five were initially listed as Turkey, Brazil, India, Indonesia and South Africa. Although the debate with respect to the scope of the “fragile five” has culminated over the years, Turkey has preserved its steady state among the vulnerable EDEs¹.

The paper investigates the economic and social impacts of the GFC from its initial aftermath until 2015 within a comparative framework in order to assess how fragile the Turkish economy is among the most fragile EDEs. In addition to providing enough of a time span to assess the spillover effects of the GFC, the year 2015 also marks a milestone as the target date set to meet the Millenium Development Goals (MDGs) that were agreed by all 189 United Nations member states in 2000. The Global Financial Crisis that hit the world economy in 2008 – 2009 is argued to slow down the progress to meet the MDGs by 2015 and deteriorated income inequality (Otker-Robe, Potpiera (2013)). Therefore, analyzing the pace to meet the targeted MDGs by the emerging and developing economies and identifying the deviation from the preset targets due to the social and economic losses resulting from the GFC and its repercussions is of crucial importance. Standing on the verge of determination of

Sustainable Development Goals (SDGs) as the core of a post 2015 global development agenda, assessment of the social and economic impacts of the recent global financial crisis and the dynamics that lead to vulnerability in comparison with other EDEs would serve well to the policy makers, academics and other interested stakeholders.

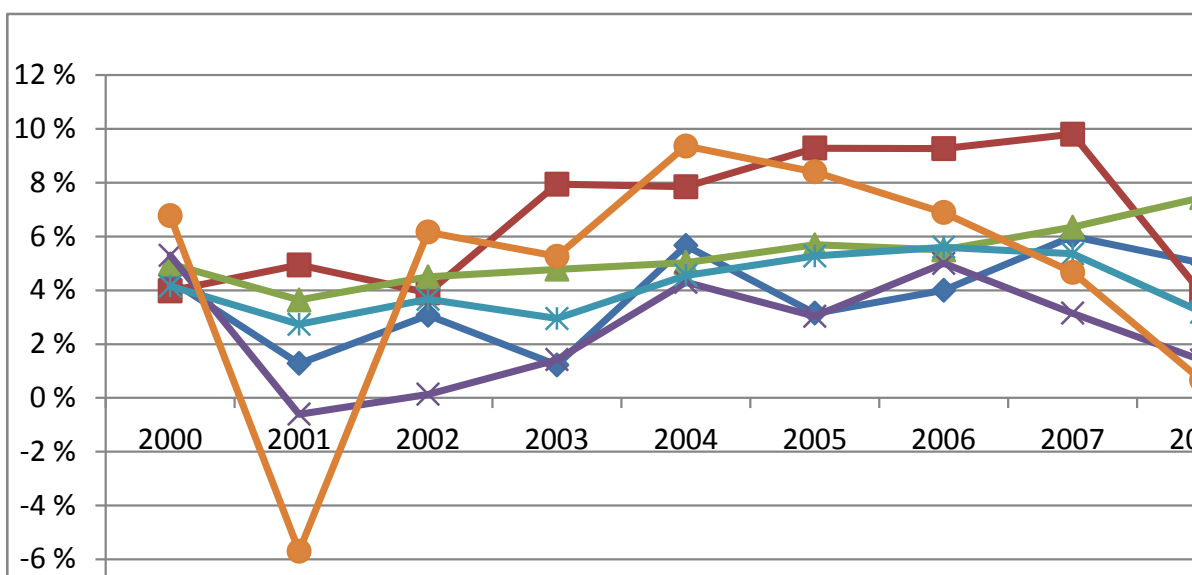
The paper is organized as follows: Section 2 analyzes the aftermath of the Global Financial Crisis with respect to the macroeconomic performance of the fragile five and Mexico. Section 3 analyzes the performance of these fragile EDEs to meet the Millenium Development Goals and tries to identify how much of their deviation from the preset targets (or previously achieved paths) can be attributed to the adverse social and economic consequences associated with the global financial crisis. Section 4 compares the results for Turkey and draws conclusions and recommendations in terms of fragility assessment for the Turkish economy.

2. The Aftermath of the Global Financial Crises

2.1. Indicators of Growth, Inequality and Poverty

Figure 1 presents the annual growth rates of GDP for the most fragile EDEs between the years 2000 and 2009. The growth rates of the fragile EDEs has been declining in the immediate aftermath of the GFC with the exception of India which demonstrated a comparatively rapid recovery process. The most volatile GDP growth among the members of the so called “fragile five” is observed in Turkey.

Figure 1. Annual Growth Rate of GDP in Fragile EDEs

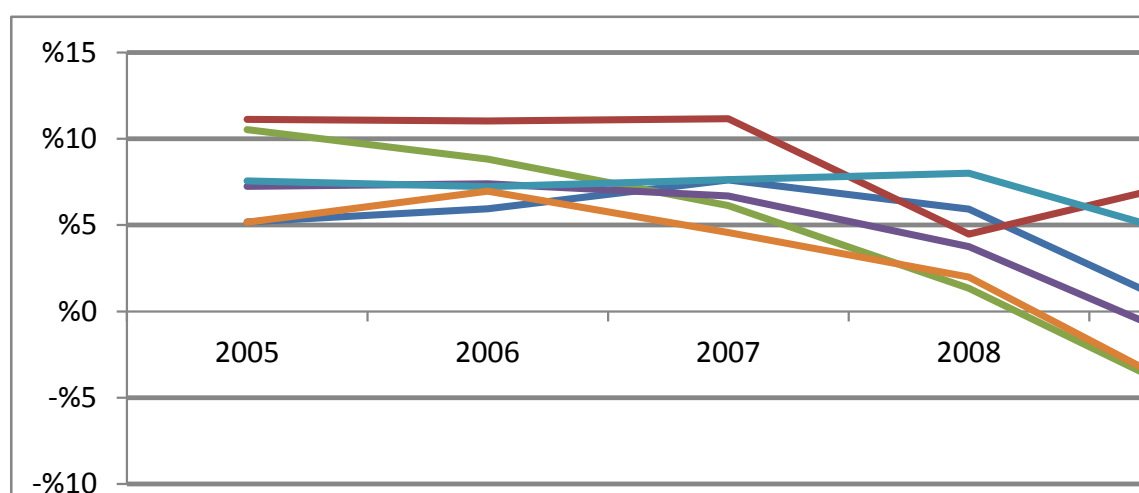


Source: Author's computations based on IMF World Economic Outlook Database, April 2015 (Gross domestic product, constant prices, national currency, billions)

https://www.imf.org/external/pubs/ft/weo/2015/01/weodata/weoseladv.aspx?a=&c=273%2c223%2c199%2c534%2c536%2c186&s=NGDP_R%2cPPPPC

Figure 2 indicates the deterioration in terms of purchasing power parity (PPP) adjusted GDP per capita immediately following the GFC. India is the only exception to the rest of the countries for which a steady sharp decline pattern in PPP based GDP per capita growth is observed.

Figure 2. Growth of PPP Based GDP per Capita in Fragile EDEs

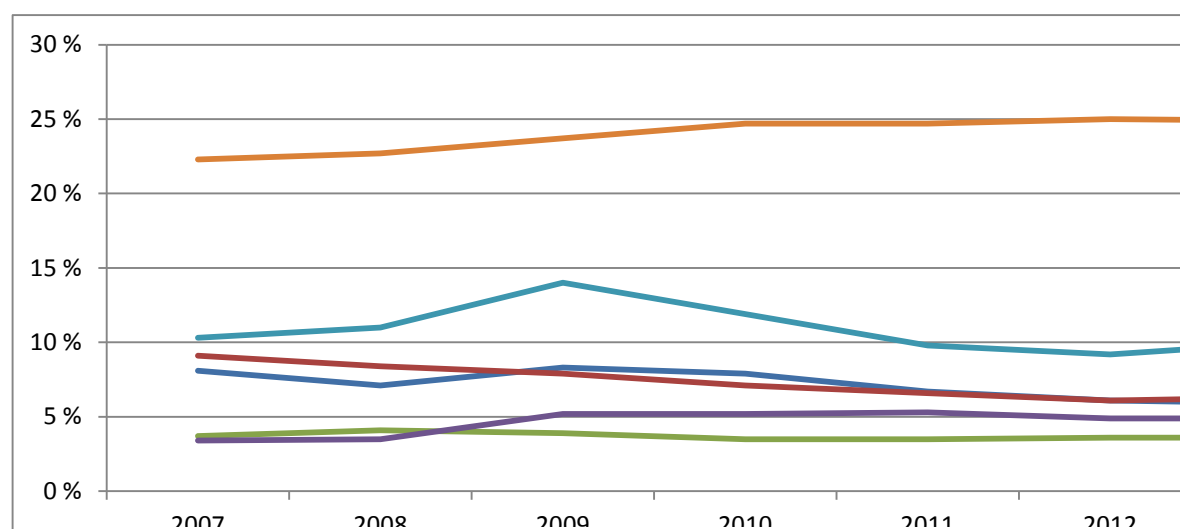


Source: Author's computations based on IMF World Economic Outlook Database, April 2015 (Gross domestic product based on purchasing-power-parity (PPP) per capita GDP, Current international

dollar)https://www.imf.org/external/pubs/ft/weo/2015/01/weodata/weoseladv.aspx?a=&c=273%2c223%2c199%2c534%2c536%2c186&s=NGDP_R%2cPPPPC

Deteriorations in macroeconomic activity have caused a rise in unemployment rates for most of the countries as an immediate consequence of the GFC. Figure 3 demonstrates the increase in unemployment rates of South Africa, Turkey, Mexico and Brazil while Indonesia deviates from the rest of the group in terms of its employment performance during the crises.

Figure 3. Unemployment Rate (%) in Fragile EDEs



Source: <http://data.worldbank.org/indicator/SL.UEM.TOTL.ZS>

Figure 4 presents the rate of change in the unemployment ratios for the countries considered. Analysis of figure 4 reveals that the most fragile EDEs in terms of the impact of the GFC on employment indicators have been Mexico, Turkey and Brazil. The sharp increase in unemployment ratios of the aforementioned countries followed with a certain period of lag following the GFC. A comparatively slight increase in the unemployment rate of India followed right after the crises in 2008 but rapidly moved back in line with its initial trend.

Figure 4. Rate of Increase in Unemployment Ratios of the Fragile EDEs

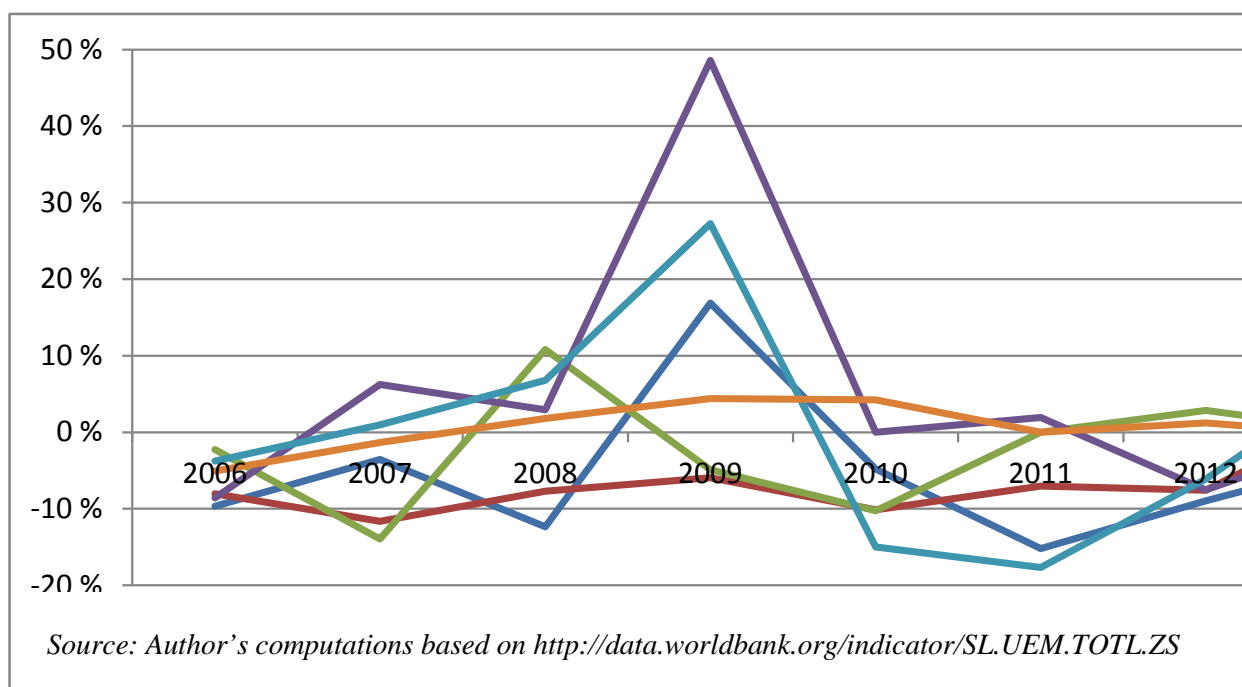
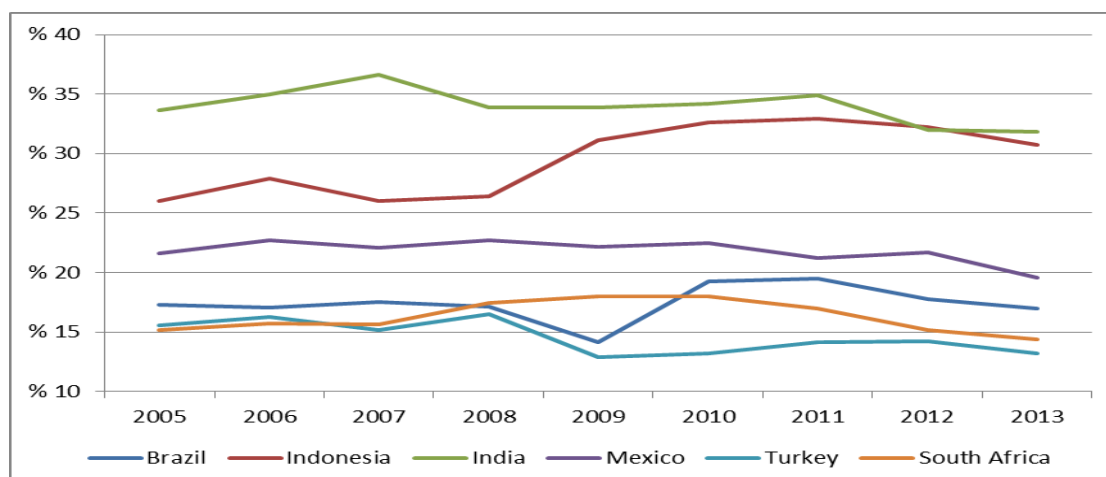


Figure 5 presents the path for the savings rates observed in the respective countries. The most pronounced decline in the savings rate following the GFC has been observed in Turkey. The decline in the savings rates of other countries such as Brazil and India has tended to move back to their initial levels whereas the savings rate for the Turkish economy has substantially deteriorated and failed to reach its pre - crisis levels in the following years. Indonesia is an exception since the savings ratio following the GFC has even increased to unprecedented levels.

Figure 5. Savings Rate (%) in Fragile EDEs



Most of the fragile EDEs analyzed demonstrated outstanding performances in terms of poverty reduction over the last decade. However, the GFC drifted an estimate of 64 million into poverty by 2010 in addition to the globally estimated 47- 84 million people initially trapped in extreme poverty in 2009 (Ötoker- Robe, Podpiera 2013, Worldbank and the IMF 2012, Chen and Ravallion 2009). Table 1 presents the poverty headcount ratio at national poverty lines as a percentage of population. According to Table 1 Mexico is the only exception that has a higher post-crises poverty headcount ratio among the fragile EDEs analyzed.

Table 1: Poverty headcount ratio at national poverty lines (% of population)

	2005	2012
Turkey	16,40	2,30
Mexico	47,00	52,30
Brazil	20,97	8,96
Indonesia	16,00	12,00
India	37,2*	21,9*
South Africa	66,6*	53,8*

Source: World Bank, <http://databank.worldbank.org/data/reports.aspx?source=poverty-and-equity-database#>

**2004 and 2011 data is used for India and 2006 and 2011 data is used for South Africa respectively.*

Table 2 compares the GINI Index of the six fragile EDEs analyzed. According to Table 2 the GINI Index that measures the extent of deviation of the income distribution from a perfectly equal distribution deteriorated post- crises only for Mexico and Indonesia.

Table 2: GINI index

	2004	2011
Turkey	41,29	40,04
Mexico	46,05	48,07*
Brazil	56,88	53,09
South Africa	67,4*	65,02
Indonesia	34,01	38,14
India	33,38	33,60

Source: World Bank, <http://databank.worldbank.org/data/reports.aspx?source=poverty-and-equity-database#>

**2006 and 2012 data is used for South Africa and Mexico respectively.*

3. Progress Towards Millenium Development Goals:

Millenium Development Goals is the entire framework of the integrated combat against dehumanizing conditions of extreme poverty. The world leaders committed achieving MDGs that include a wide spectrum of goals spanning from eradication of hunger to enabling gender equality in 2000. The MDGs that were a set of goals to be achieved by 2015 shaped the global development agenda and helped to set the policy priorities against the most vulnerable of the world. Although remarkable performance is achieved towards meeting the MDGs there are still some parts of the world that progress tends to pass by. In addition to the disparities observed in terms of development across different regions of the world the recent GFC is argued to slow down the pace towards meeting the MDGs. Therefore, this section explores the performance of the fragile EDEs with respect to meeting the MDGs pre and post crises.

3.1. Eradication of Extreme Poverty and Hunger

Extreme poverty rate has declined significantly from %47 to %14 since 1990 in developing countries (United Nations, Millennium Development Goals Report, 2015). Although most of the progress has occurred since 2000, the pace of development has declined following the GFC.

The three main targets set for eradication of extreme poverty and hunger include;

- To halve between 1990 and 2015 the proportion of people whose income is less than one dollar a day,
- To achieve full and productive employment and decent work for all, including women and young people,
- To halve between 1990 and 2015, the proportion of people who suffer from hunger.

There is limited data on the indicators concerning the proportion of population below \$1.25 (PPP) per day for the set of countries analyzed in this paper. There is a slight increase in population below \$1.25 (PPP) per day from %0,11 in 2008 to 0,41 and 0,61 in 2010 and 2011 respectively in Turkey. Also the limited data reveals post-crisis deterioration in percentages of population below \$1.25 (PPP) per day and population below national poverty lines for

Mexico. The rest of the countries analyzed can not be compared on the basis of indicators of eradication of poverty and hunger due to lack of data.

Employment to population ratios for all men, women and both sexes have slightly declined in Brazil, India, Mexico and South Africa in the aftermath of the GFC whereas it has continued its steady increase in Indonesia and Turkey. The most pronounced decline in employment to population ratios was observed in South Africa and India.

Unemployment rate of young people aged 15-24 has increased for Brazil, South Africa, India, Turkey and Mexico in the immediate aftermath of the GFC. The sharpest increase has been observed in Mexico and Turkey with %42 and %23 respectively. Although the youth unemployment has returned back to its pre-crisis levels in Turkey in 2011, relatively higher unemployment rates for young people sustained in Mexico since the start of the GFC. Also, the youth unemployment rate in South Africa has been quite high historically. Although the increase in the youth unemployment ratio is not as pronounced as in Mexico or Turkey following the GFC, youth unemployment could not be declined to the target levels in South Africa. Table 3 below shows the rates for youth unemployment for the countries analyzed except for India where the data is limited. Youth unemployment in India has been fairly stable around %10 over the years (%10 in 2005 and % 10,7 in 2012).

Table 3: Youth unemployment rate, aged 15-24, both sexes (%)

	2005	2006	2007	2008	2009	2010	2011	2012
Brazil	19,3	17,7	16,8	15,5	17,8	NA	15,3	14,6
Indonesia	32,4	30,4	25,1	23,3	22,2	20,7	21,9	19,3
Mexico	6,6	6,2	6,7	7	10	9,3	9,8	9,3
South Africa	48,3	46,7	46,5	45,6	48,3	51,2	50,3	51,7
Turkey	19,9	19,1	20	20,5	25,3	21,7	18,4	17,5

Source: United Nations, Millennium Development Goals Database, <http://mdgs.un.org/unsd/mdg/Data.aspx> (NA: not available)

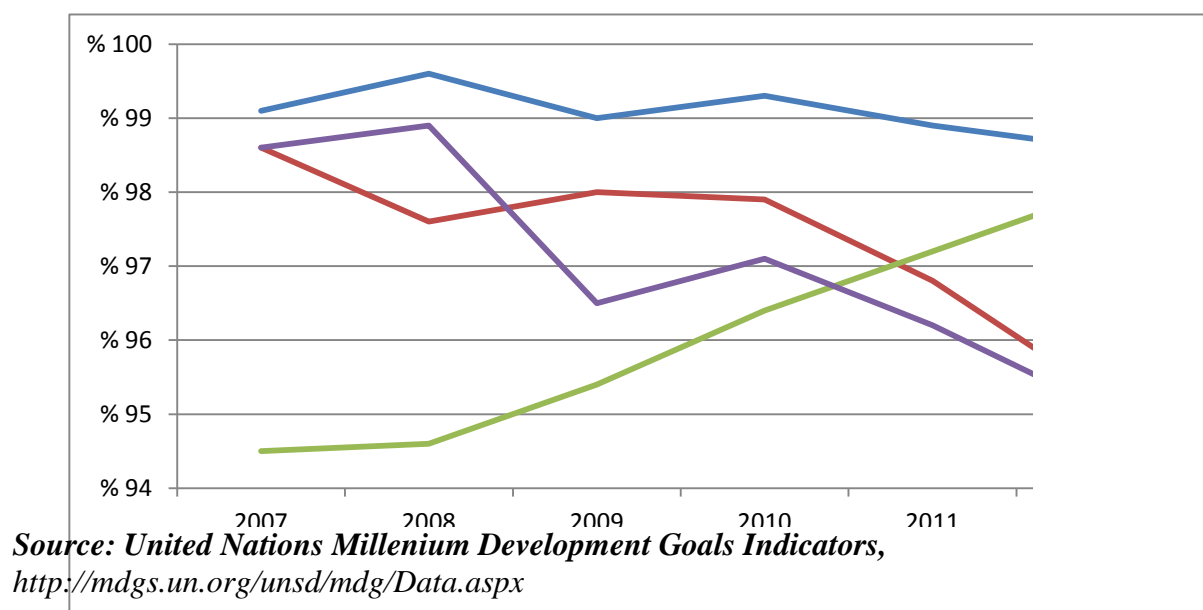
Indicators regarding the nourishment levels of the population indicate sound progress from 1990's until 2015 although the pre- set goal of halving the undernourished population could not be attained in India. There is only a slight increase in the ratio of the undernourished population in India in 2007 and 2008 but the percentage of the undernourished declined back to its level at the beginning of the 2000's and even declined further since 2008. Yet %15 of

the population in India is undernourished in 2015 compared to %23,7 in 1992. The percentage of population undernourished in Turkey has historically been below %5 since the date of measurement. Also South Africa, Mexico and Brazil has reached a level of undernourished population below %5 since the mid 2000's.

3.2. Achieving Universal Primary Education

In order to achieve universal primary education, children everywhere are targeted to be able to complete a full course of primary schooling by 2015. Although net enrolment ratio in primary education has shown an overall improvement the indicators have regressed for some of the fragile EDEs following the GFC. For instance, net enrolment ratio in primary education has fallen since 2010 for India, since 2009 for Indonesia and since 2008 for Turkey. Figure 6 below demonstrates the steady sharp decline in the net enrolment ratios for primary schooling following the aftermath of the GFC. More data is needed to infer causality between the primary school enrolment ratios and social and economic impacts of the GFC. Also a thorough analysis can not be conducted due to data inavailability for some of the countries such as Brazil and South Africa. Similarly, primary completion rates declined since 2008 and 2009 for India, Indonesia, Mexico and Turkey. Data concerning primary completion rates does not exist for South Africa and Brazil. Although literacy rates of 15-24 year-olds, for both women and men have increased in all EDEs analyzed, the gaps in data disable a robust comparison between the pre- crisis and post -crisis levels among the indicators.

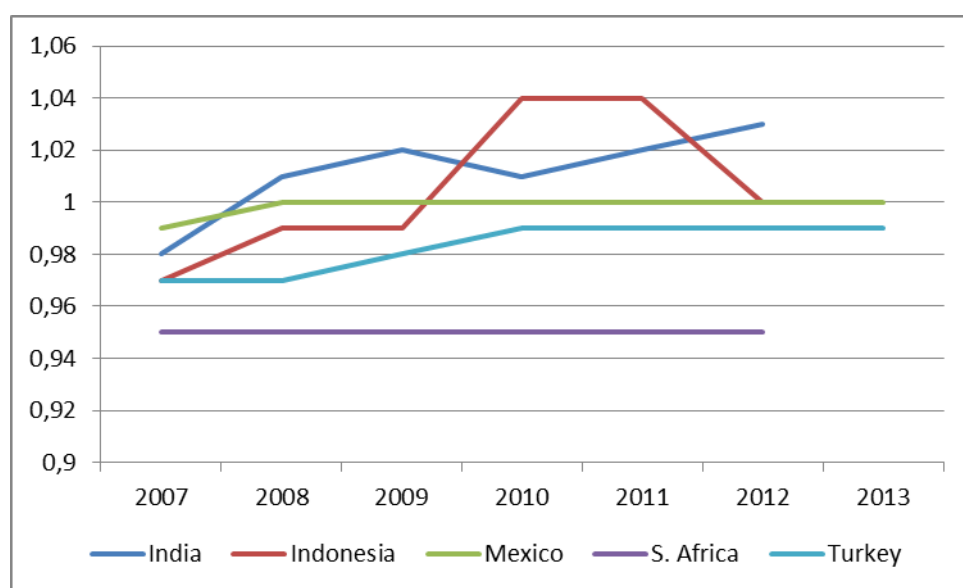
Figure 6. Net enrolment ratio in primary education



3.3. Promotion of Gender Equality and Empowerment of Women

Promotion of gender equality and empowerment of women includes elimination of gender disparity. In order to achieve this goal, elimination of gender disparity in primary and secondary education preferably by 2005 and in all levels of education by 2015 is targeted. The gender parity indices for primary, secondary and tertiary level enrolment have been improved since the last two decades in all of the fragile EDEs except for Brazil for which there is no data. Figure 7 that displays the gender parity index for the countries analyzed indicate no significant deterioration in the associated indicators following the aftermath of the GFC. Whether the pace of the progress regarding elimination of gender disparity is adequate enough as expected from a developing emerging economy is beyond the scope of this paper.

Figure 7. Gender Parity Index in primary level enrolment



*Source: United Nations Millenium Development Goals Indicators,
<http://mdgs.un.org/unsd/mdg/Data.aspx>*

In addition to the gender parity indices for primary, secondary and tertiary level enrolment, the share of women in wage employment in the non-agricultural sector has been improving steadily even after the GFC with the only exception of Brazil and Indonesia showing only a slight decrease (from % 47 to % 46,8 and % 31,3 to %30,9 from 2006 to 2007 respectively).

The Table 4 below indicates that the proportion of seats held by women in the national parliaments increased in the EDEs analyzed in line with the MDG targets. As can be followed from Table 4 there is no deterioration in these gender oriented targets following the GFC.

Table 4: Proportion of seats held by women in national parliament (%)

	1990	2000	2005	2015
Brazil	5,3	5,7	8,6	9,0
India	5,0	9,0	8,3	12,0
Indonesia	12,4	11,4*	11,3	17,1
Mexico	12,0	18,2	22,6	38,0
S. Africa	2,8	30,0	32,8	41,5
Turkey	1,3	4,2	4,4	14,4

Source: Author's computations based on United Nations Millenium Development Goals Indicators, <http://mdgs.un.org/unsd/mdg/Data.aspx> (1999 data is used for Indonesia)*

3.4. Reducing Child Mortality

The under five mortality rate is targeted to be reduced by two thirds between 1990 and 2015 in order to achieve reduction in child mortality. The Table 5 below displays under five mortality rate per 1,000 live births. The most recent data belongs to year 2013 in the Millenium Development Goals database so it is not feasible to calculate if the preset goals is attained by the year 2015. Yet, Brazil, Mexico and Turkey have already lowered under five mortality rates below two thirds of the initial rates in 1990 and Indonesia came very close to the target. However, India and South Africa are far from the targeted level of reduction by two thirds. In terms of reducing the child under five mortality rate Brazil and Turkey has shown the most remarkable performance. South Africa has done a poor job until recently but managed to decrease the children under five mortality rate only after 2009 below the initial rate of 1990. No deterioration in under five mortality rates is observed following the GFC.

Table 5: Children under five mortality rate per 1,000 live births

	1990	2000	2005	2013
India	125,9	91,4	74,7	52,7
Indonesia	84,3	52,2	41,4	29,3
Turkey	74,4	41,7	30,9	19,2
South Africa	61	74,3	79,6	43,9
Brazil	61,5	32,9	22,9	13,7
Mexico	46,4	25,6	19,5	14,5

*Source: United Nations Millenium Development Goals Indicators,
<http://mdgs.un.org/unsd/mdg/Data.aspx>*

Similar patterns follow for the infant mortality rates as demonstrated in Table 6. The infant mortality rate has been reduced by more than %60 in Brazil, Turkey and Indonesia by 2013. The poorest performance again belongs to South Africa with only a %30 reduction in infant mortality rate by 2013 compared to 1990's.

Table 6: Infant mortality rate per 1,000 live births

	1990	2000	2005	2013
India	88,4	66,5	55,9	41,4
Indonesia	62	41	33,4	24,5
Turkey	55,7	33,7	25,7	16,5
Brazil	51,4	28,9	20,4	12,3
South Africa	47	51,7	51,4	32,8
Mexico	37	21,6	16,7	12,5

*Source: United Nations Millenium Development Goals Indicators,
<http://mdgs.un.org/unsd/mdg/Data.aspx>*

3.5. Improvement of Maternal Health

The maternal mortality ratio is targeted to be reduced by three quarters between 1990 and 2015. Table 7 shows the decline in maternal mortality ratios per 100,000 live births. Although outstanding performance is observed for most of the countries except for South Africa, the goal to achieve a reduction by three quarters with respect to the initial mortality ratio in 1990 has not yet attained. The comparison of the data for pre-crisis and post-crisis periods does not

reveal a significant change in the pace of decline except for Brazil and Mexico. Although the mortality ratios for Brazil and Mexico continued to decline following the GFC the reduction in mortality ratios has lost pace after 2005.

Table 7: Maternal mortality ratio per 100,000 live births

	1990	2000	2005	2013
India	560	370	280	190
Indonesia	430	310	250	190
S. Africa	150	150	160	140
Brazil	120	85	73	69
Mexico	88	67	50	49
Turkey	48	33	27	20

*Source: United Nations Millenium Development Goals Indicators,
<http://mdgs.un.org/unsd/mdg/Data.aspx>*

Another indicator with respect to the maternal mortality performance is the proportion of births attended by skilled health personnel. However, lack of data regarding the proportion of births attended by skilled health personnel disables a comparative analysis. Yet, there is improvement in the proportion of births attended by skilled health personnel for all the countries analyzed.

Another target set under improvement of maternal health is the achievement of universal access to reproductive health. Analysis of indicators such as contraceptive use, adolescent birth rate, antenatal care coverage and percentage of unmet need for family planning point to recognizable improvement towards the millenium development goals targeted but due to data gap a comparative study regarding the pre and post crises periods could not be concluded.

3.6. Combat with the HIV/ AIDS, Malaria and Other Diseases

The three main targets in order to combat with the HIV/AIDS, malaria and other diseases are;

- To have halted by 2015 and begun to reverse the spread of HIV/AIDS,
- To achieve by 2010 universal access to treatment for HIV/AIDS for all those who need it,

- To have halted by 2015 and begun to reverse the incidence of malaria and other diseases,

HIV prevalence among population aged 15-24 years is on rise except for Brazil and Turkey for which data does not exist. The most pronounced increase in the HIV related indicators is observed for South Africa although the HIV incidence rate among 15- 49 years as a percentage of population (mid-point) has been declining for South Africa since 2000.

In terms of reversing the incidence of malaria, tuberculosis and other major diseases the countries analyzed have performed successfully.

3.7. Ensuring Environmental Sustainability

Ensuring environmental sustainability aims;

- integration of the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources,
- achieving by 2010 a significant reduction in the rate of biodiversity loss,
- halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation,
- achieving a significant improvement in the lives of at least 100 million slum dwellers

Table 8 shows that the proportion of land area covered by forests increased in Turkey and India whereas decreased by %9 and %20 in Brazil and Indonesia respectively from 1990's to 2010. The proportion of land area covered by forests remained low and stable in South Africa over the years. All of the countries managed to lower their consumption of ozone depleting substances over the years. Similarly there is concerted effort to increase the proportion of terrestrial and marine areas protected to total territorial area in all the EDEs analyzed.

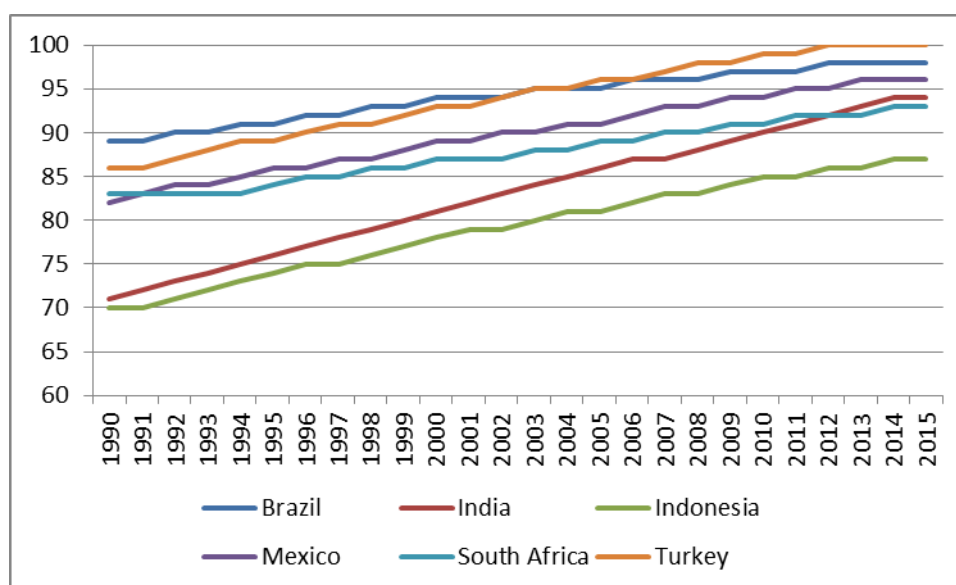
Table 8: Proportion of land area covered by forest(%)

	1990	2000	2005	2010
Brazil	69	65,6	63,7	62,4
India	21,5	22	22,8	23
Indonesia	65,4	54,9	54	52,1
Mexico	36,2	34,3	33,7	33,3
S. Africa	7,6	7,6	7,6	7,6
Turkey	12,6	13,2	14	14,7

*Source: United Nations Millenium Development Goals Indicators,
http://mdgs.un.org/unsd/mdg/Data.aspx*

Figure 8 displays the increase in the proportion of population using an improved drinking water source from 1990's till 2015. Similarly all of the countries analyzed managed to increase the proportion of population using an improved sanitation facility although the performance of access to better sanitation facilities is not as satisfactory as enabling access to improved drinking water source. Most of the countries managed to decrease slum population as a percentage of urban population by %50 on average compared to the initial level in 1990 only exception being Brazil with a decline of %39.

Figure 8. Proportion of population using an improved drinking water source (%)



*Source: United Nations Millenium Development Goals Indicators,
http://mdgs.un.org/unsd/mdg/Data.aspx*

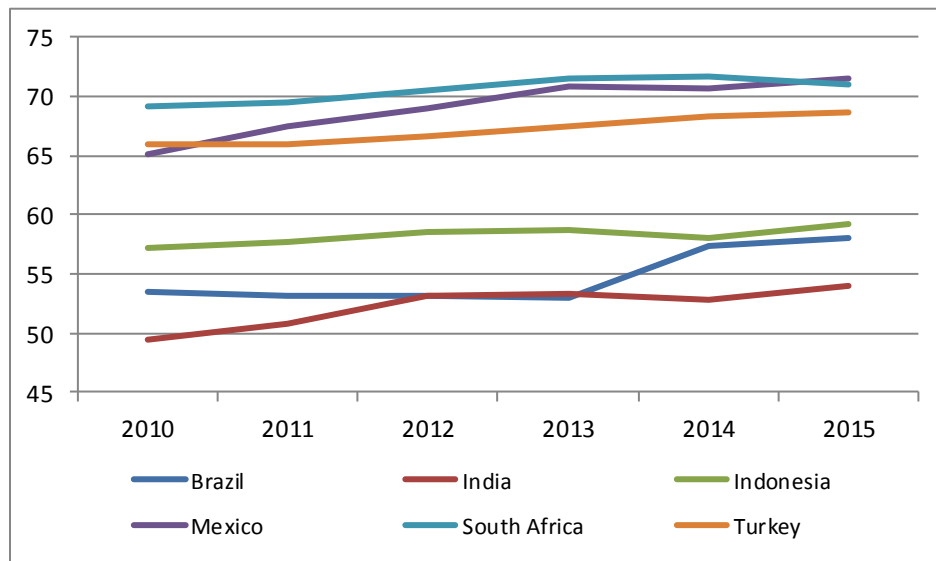
None of the indicators pertaining to the MDG of ensuring environmental sustainability deteriorated due to the adverse economic consequences stemming from the GFC.

3.8. Developing a Global Partnership for Development

The goal to build and sustain a global partnership for development includes targets such as development of an open, rule-based, predictable non-discriminatory trading and financial system, addressing the special needs of least developed countries as well as landlocked countries and small island developing states. Although the targets under this heading also include dealing with debt problems of developing countries through national and international measures to enhance debt sustainability in the long term, the fragile EDEs analyzed throughout the paper already have their debt problems. Provision of access to affordable essential drugs in developing countries in cooperation with pharmaceutical companies and making available the benefits of new technologies especially in information and communication in cooperation with the private sector are also included in the scope of this MDG.

The data for the indicators associated with developing a global partnership for development is limited for the set of countries analyzed in this paper. Yet the World Bank's Doing Business Index is used to assess the internationally recognized standards with respect to openness, non-discrimination, predictability and transparency expected from the business environment. Figure 9 below displays the distance to frontier score that is used as an indicator of the improvement in regulatory performance with respect to the business environment in an economy². Due to lack of data the performance of the countries analyzed cannot be compared pre and post crises. Mexico, India and Brazil are among the best performers over the last five years in terms of improving their overall distance to frontier scores. Turkey's performance is below average among the group members and Turkey is the second most volatile economy with respect to the development of the distance to frontier score, coming after South Africa.

Figure 9. Distance to frontier score over the years



Source: <http://www.doingbusiness.org/data/distance-to-frontier>

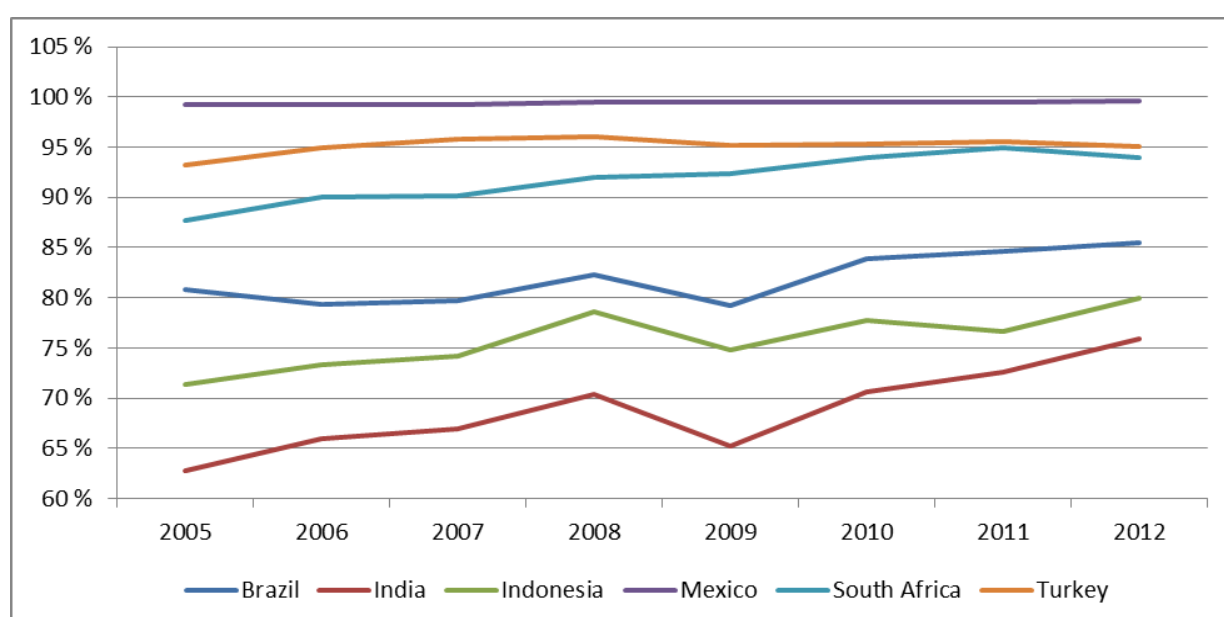
The performance of the countries with respect to their debt service as percentage of exports of goods and services and net income is outstanding and there is almost no deterioration in the debt service performance during the GFC except for India which displayed a fast recovery process since 2009.

The increasing trend in fixed telephone subscriptions since 1990's regressed slightly following the aftermath of the GFC except for Brazil. The retreat in fixed telephone subscriptions may be explained by the rise in usage of substitutes such as mobile-cellular subscriptions in addition to income effect due to the rise in unemployment. Because mobile-cellular subscriptions per 100 inhabitants continued to increase even following the aftermath of the GFC in India, Indonesia, Mexico and South Africa although the subscriptions in fixed telephones declined in these countries. Turkey is the only country where both mobile and fixed telephone subscriptions retreated between 2009 and 2013.

The proportion of total imports from developing countries and from the least developed countries, admitted free of duty is used as an indicator for addressing the special needs of least developed countries as well as landlocked countries and small island developing states. The

Figure 10 displays the proportion of total imports from developing countries and from the least developed countries, admitted free of duty. The ratio of imports from developing and the least developed countries declined in 2009 for all except Mexico and South Africa. The decline in the ratio of imports from developing and the least developed countries is more pronounced for India, Indonesia and Brazil, in that order. However, the decline bounced back to its pre-crisis level fast and even continued to improve since then.

Figure 10: Proportion of total imports (by value and excluding arms) from developing countries and from the least developed countries, admitted free of duty (%)



Source: *United Nations Millenium Development Goals Indicators*,
<http://mdgs.un.org/unsd/mdg/Data.aspx>

4. Conclusion

Millenium Development Goals include wide- ranging targets as the foundation of the agenda is built on a strong political commitment towards dehumanizing conditions of poverty and underdevelopment. The emerging post- 2015 development agenda that includes a set of Sustainable Development Goals necessitates a thorough assessment of the emerging and developing economies performance with respect to the MDGs. The vision to combat against

poverty in a multi dimensional framework resulted in respectable success on many diverse areas spanning from reducing child and maternal mortality to promoting gender equality and achieving universal literacy. However the Global Financial Crisis of 2007- 2008 caused devastating macroeconomic impacts especially on the most fragile EDEs and hence argued to slow down the pace of reaching to the MDG commitments. This paper aims to present a comparative analysis of the performance of the most fragile EDEs in terms of their pace towards meeting the MDGs. Although most of the countries have shown remarkable success in meeting the MDGs there are still some areas left that demand for improved performance such as ensuring environmental sustainability and developing a global partnership. The decline in the performance of some of the countries is attributable to the challenging macroeconomic conditions that appeared in the global agenda after the GFC. However, the gaps in data disable us to infer direct causality between the GFC and the slowdown in the performance to meet the MDGs in the aftermath of the crisis. In addition to providing a comparative framework of the most fragile EDEs that became to be called as the “fragile five” recently, this paper has a special focus on Turkey and tries to assess how fragile the Turkish economy is among the most fragile five.

Table 9 below compares the volatility of the EDEs analyzed throughout the paper with respect to growth, unemployment, income distribution, savings and their performance pertaining to the certain comparable MDGs. The most volatile country ranks 1st and Turkey has been the most volatile with respect to its growth and employment performance especially following the GFC. Since the gaps in data pertaining to the other MDGs disable a comparison among the countries over the years, only the volatility in limited number of indicators could be assessed. Turkey among with Indonesia displayed the highest volatility in overall. However Indonesia has performed quite well in terms of growth and employment even during the GFC. The comparative stability that Indonesia displayed post GFC led to suggestions that Indonesia be removed out of the “fragile five” and be replaced by Mexico instead. Although Mexico is not among the most volatile countries in overall, it has its own certain weaknesses such as worsening income distribution, increasing poverty headcount ratio and escalating youth unemployment. Hence instead of identifying any single country as the most fragile among “the fragile five” it is more appropriate to identify the weak and strong qualities of each economy and investigate the factors that restrain countries from further progress towards MDGs. This kind of investigation that demands a detailed socio- economic analysis with

respect to the MDGs in each country is beyond the scope of this paper but may be explored for future research.

Table 9: Volatility Ranks Among the Countries Analyzed

	Growth	Unemployment	Savings	GINI Index	Eradicate extreme poverty& hunger	Achieve Universal Primary Education
Brazil	3	4	3	6	4	2
India	4	6	2	3	6	1
Indonesia	6	2	1	1	1	4
Mexico	2	5	6	2	5	5
Turkey	1	1	4	4	2	3
South Africa	5	3	5	5	3	6

Source: Author's computations based on IMF World Economic Outlook Database United Nations Millenium Development Goals Indicators, <http://mdgs.un.org/unsd/mdg/Data.aspx>; https://www.imf.org/external/pubs/ft/weo/2015/01/weodata/weoseladv.aspx?a=&c=273%2c223%2c199%2c534%2c536%2c186&s=NGDP_R%2cPPPPC

Notes:

1. India and Indonesia are recently argued to be out of the “fragile five” whereas Mexico is argued to move into the list. Therefore this paper focuses on the initially listed “fragile five” plus Mexico.
2. Distance to frontier score reflects the distance of each economy to the “frontier,” that is chosen to display the best performance on each of the indicators across all economies in the Doing Business sample. This indicator allows users to compare the the gap between the economy's level and the best performance. The figure also enables to assess the level of improvement over time as measured by Doing Business (<http://www.doingbusiness.org/data/distance-to-frontier>).

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